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SPECIFICATION FOR STRAIGHTEDGES FOR DRAWING OFFICE USE

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Indian Standard

SPECIFICATION FOR STRAIGHTEDGES FOR DRAWING OFFICE USE

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 December 1962, after the draft finalized by the Optical and Mathematical Instruments Sectional Committee had been approved by the Engineering Division Council.

0.2 The straightedge is a drawing instrument used by draughtsmen, [illegible] high degree of accuracy on plans, drawings and maps.

0.3 Taking into consideration the views of producers and consumers, the Sectional Committee responsible for the preparation of this standard felt that it should be related to the manufacturing practices followed in the country in this field.

0.4 Wherever a reference to any Indian Standard appears in this specification, it shall be taken as a reference to the latest version of the standard.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960 Rules for Rounding Off Numerical Values (*Revised*). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

0.6 This standard is intended chiefly to cover the technical provisions relating to straightedges, and it does not include all the necessary provisions of a contract.

1. SCOPE

1.1 This standard covers the requirements of straightedges in five sizes of 2 000, 1 500, 1 000, 750 and 500 mm.

2. MATERIAL

2.1 Straightedges shall be made of rust-proof steel, stainless steel or chromium and nickel plated hard rolled brass. The electroplating on hard rolled brass shall conform to Grade B of IS : 1068-1958 Specification for Copper, Nickel and Chromium Electroplated Coatings.

3. DIMENSIONS

3.1 The straightedges shall be made to the dimensions given in Table I.

TABLE I DIMENSIONS OF STRAIGHTEDGES

(*Clause* 3.1 *and* Fig. 1)

(All dimensions in millimetres)

Nominal Length	Width of Straightedge (Nominal)	Thickness		Angle of Bevelling
		At Unbevelled Edge (*Min*)	At Bevelled Edge	
L	D	T	T_1	θ
2 000	80	3	1	15°
1 500	80	3	1	15°
1 000	60	3	1	15°
750	40	2	1	15°
500	40	2	1	15°

4. DESIGNATION

4.1 The straightedges shall be designated by their nominal length and the IS number. For example, a straightedge of 500 mm nominal length shall be designated as:

Straightedge 500 IS : 2233

5. WORKMANSHIP AND CONSTRUCTION

5.1 The straightedge shall be made as shown in Fig. 1. The working surfaces of the straightedge shall be flat and true. All edges shall be straight, parallel and of uniform thickness. The ends shall be square to the ruling edge.

5.2 The working edge of the straightedge shall be bevelled as shown in Fig. 1.

5.3 A drilled hole, 15 mm in diameter, shall be provided on each straightedge. The centre of the hole shall lie on the longitudinal centre line about 25 mm from one end of the straightedge.

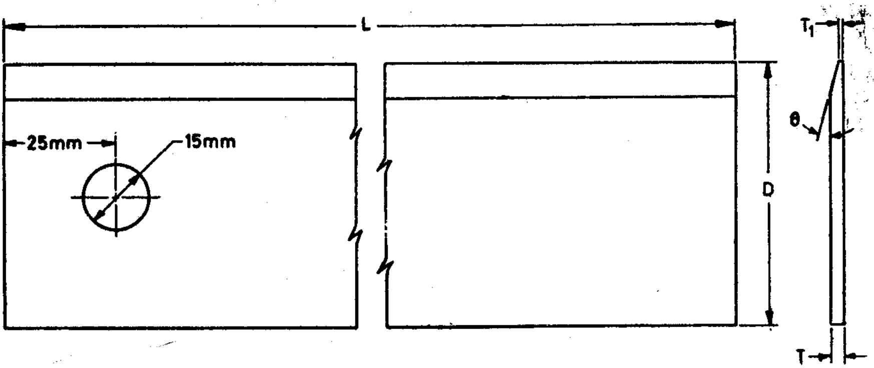

Fig. 1 Straightedge

6. ACCURACY

6.1 The working edge shall not deviate from straightness by more than 0·025 mm up to 1 000 mm and 0·040 mm above 1 000 mm.

7. MARKING

7.1 Each straightedge shall be legibly and indelibly marked with the maker's name or trade-mark and the year of manufacture.

7.1.1 The straightedges may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. PACKING

8.1 Each straightedge shall be packed in a wooden box or case of appropriate size made of seasoned hard wood. The case shall be suitably padded inside preferably lined with baize.

INDIAN STANDARDS INSTITUTION

The Indian Standards Institution (ISI), which started functioning in 1947, is the national standards organization for India. Its principal object is to prepare standards on national and international basis and promote their general adoption.

The overall control of ISI, which is run and financed jointly as a non-profit making body by the Government and private enterprise, is exercised by the General Council, composed of representatives of Central and State Governments; leading trade, scientific and technological organizations; and subscribing members. The Union Minister of Industry is the ex-officio President of ISI.

The present technical activity of ISI is carried out through 8 Division Councils for Agricultural and Food Products; Chemical; Civil Engineering; Consumer Products; Electrotechnical; Mechanical Engineering; Structural and Metals; and Textile. All technical work relating to the formulation and revision of standards is done by committees appointed by and under the direction of their respective Division Councils. These committees consist of experts drawn from manufacturing units, technical institutions, purchase organizations and other concerned bodies.

To make available benefits of Indian Standards to the common man, ISI has introduced its Certification Marks Scheme under the *Indian Standards Institution (Certification Marks) Act, 1952,* as amended by the *Amendment Act, 1961.* According to this Act, quality goods conforming to Indian Standards can carry the ISI Certification Mark. This Mark is a third-party guarantee of quality of marked goods. Licences to use the ISI Certification Mark are granted to manufacturers using reliable methods of quality control subject to overall inspection by ISI.

In the international field, ISI represents India on the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). ISO and IEC respectively link 54 and 40 countries, and function through 118 and 58 technical committees; ISI participates in 83 technical committees of ISO and all the technical committees of IEC. The committees and subcommittees of IEC and ISO for which ISI holds the secretariat deal with: Electric Fans, Lac, Mica, Pictorial Markings for Handling of Goods, Liquid Flow Measurements in Open Channels, Procedures for Inter-conversion of Values, Spices and Condiments, and Stimulant Foods.

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